

## REMARKS

### Amendments:

The claims have been amended as set forth above. Specifically:

- Claims 1-7 and 9-11 are hereby cancelled. (It is noted that claim 8 was previously cancelled.) (All cancelled claims are cancelled without prejudice to present such claims again in the future.)
- Claim 12 has been amended to place it in independent form, and to include the limitations of now-cancelled claim 11, from which claim 12 originally depended.
- Claim 15 has been amended to now depend from claim 12.
- Claims 33-36 are newly added.

### Rejection of Claims Under 35 U.S.C. § 102:

Claims 1, 4, 5, and 9-14 have been rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,717,702 to Yamauchi et al. (hereinafter, "Yamauchi").

Claims 1, 4, 5 and 9-11 have been cancelled. Accordingly, the rejection of these claims is now moot.

However, claim 4 has now been rewritten in independent form, and is now presented as new claim 34. The Applicant contends that new claim 34 is not anticipated by Yamauchi, since claim 34 contains at least one limitation not shown by Yamauchi. Specifically, claim 34 requires "a drive track supported within the scanner body and positioned adjacent to the first edge of the platen". This limitation is simply not shown in Yamauchi. In fact, Yamauchi does not show or describe a platen (or the equivalent) anywhere, and so it is impossible to determine the relationship of the drive track ("synchromesh wire 4") of Yamauchi to any "platen". In fact, as indicated by viewing Fig. 1 of Yamauchi (along with the accompanying description at Col. 3 lines 63-67) the drive track ("synchromesh wire 4") of Yamauchi is positioned between the edges of where a platen would be (in frame 11), and not "adjacent to [an] edge of the platen", as required by claim 34. Accordingly, at least for these reasons the Applicant contends that claim 34 is allowable, and therefore requests allowance of the same.

With respect to claim 12 (which has been amended to place it in independent form, and to include the limitations of now-cancelled independent claim 11, from

*Application No. 10/173,326  
Docket No. 10013243-1  
Response/Amendment*

1 which claim 12 originally depended), the Applicant contends that claim 12 is not  
2 anticipated by Yamauchi, since claim 12 contains at least one limitation not shown  
3 by Yamauchi. Specifically, claim 12 requires that “the scanner body defines an  
4 inside upper surface, and wherein the drive wheel contacts the inside upper surface  
5 of the scanner body.” This limitation is simply not shown in Yamauchi. More  
6 specifically, referring to Figs. 1 and 2A of Yamauchi, and the accompany description  
7 at Col. 3 lines 63-67, the “drive wheel” of Yamauchi (synchromesh pulley 14, Fig. 2A)  
8 contacts the synchromesh wire 4 (Fig. 1) in order to drive the scanning member 15.  
9 In no way does Yamauchi describe a drive wheel that “contacts the inside upper  
10 surface of the scanner body”, as is required by Applicant’s claim 12.

11 Since claims 13-15 depend from claim 12, claims 13-15 are allowable for at  
12 least the same reason that claim 12 is allowable. The Applicant therefore requests  
13 allowance of claims 12-15.

#### 14 Rejection of Claims Under 35 U.S.C. § 103: Yamauchi and Tiara

15 Claims 2-3 and 7 have been rejected under 35 U.S.C. 103(a) as being  
16 unpatentable over Yamauchi in view of U.S. Patent No. 5,873,308 to Tiara.

17 Claims 2-3 and 7 have been cancelled. Accordingly, the rejection of these  
18 claims is now moot.

19 However, claim 2 has now been rewritten in independent form, and is now  
20 presented as new claim 33. The Applicant contends that new claim 33 is not  
21 obvious over Yamauchi in view of Tiara, since claim 33 contains at least one  
22 limitation not shown by (nor rendered obvious by) either Yamauchi or Tiara.  
23 Specifically, claim 33 requires “a drive track defined on the platen”. As discussed  
24 above with respect to claim 34, Yamauchi does not even show or describe a platen.  
25 While Tiara shows a “support glass 50” (Figs. 1, 3 and 6-9), Tiara nowhere teaches  
or suggests a “drive track” defined on the “support glass”, as is required by  
Applicant’s claim 33.

Accordingly, for at least this reason the Applicant contends that new claim 33  
is allowable.

With respect to claim 7 (which has now been cast in independent form as new  
claim 35), the Applicant contends that claim 35 is not obvious over Yamauchi in view  
of Tiara, since claim 35 contains at least one limitation not shown by (nor rendered

1 obvious by) either Yamauchi or Tiara. Specifically, claim 35 requires that, "the drive  
2 wheel includes a rubberized outer portion, and the drive track has a non-smooth  
3 surface to allow the rubberized outer portion of the drive wheel to engage the drive  
4 track". The Applicant contends that neither Yamauchi nor Tiara teach or suggest a  
5 drive wheel having "a rubberized outer portion", as is required by Applicant's  
6 claim 35. Further, neither Yamauchi nor Tiara teach or suggest a drive track having  
7 a "non-smooth surface to allow [a] rubberized outer portion of [a] drive wheel to  
engage the drive track", as is also required by Applicant's claim 35.

8 Accordingly, for at least these reasons the Applicant contends that new  
9 claim 35 is allowable.

#### 10 Rejection of Claims Under 35 U.S.C. § 103: Yamauchi and Novak

11 Claims 16-19, 22-25, and 29-32 have been rejected under 35 U.S.C. 103(a)  
12 as being unpatentable over Yamauchi in view of U.S. Patent No. 6,753,534 to Novak  
13 et al. (hereinafter, "Novak"). (It is also noted that claims 15, 20 and 21 have been  
14 rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi in view of  
15 Novak as applied to claims 16-19, 22-25, and 29-32 above, and further in view of  
U.S. Patent No. 6,961,154 to Sugano.)

16 With respect to claim 16, the Examiner contends in the current office action  
17 that Yamauchi teaches all the claimed elements except for a magnet-track portion in  
18 proximity to the slider portion to thereby allow the light bar assembly to be driven  
along the magnet-track portion, which the Examiner contends is taught by Novak.

19 The Examiner contends that one of ordinary skill in the art would have been  
20 motivated to combine the teachings of Yamauchi and Novak because, "(a) it would  
21 have allowed a user to shield the magnetic fields created by the moving motors or  
22 other moving magnetic permeable components from the electron beam lithography  
23 system; and (b) it would have allowed users to avoid a shift of the electron beam by  
24 magnetic fields and cause misalignment of the pattern of the article, as discussed by  
25 Novak at col. 1, line 62 through col. 2, line 5." (See the Office action of Dec. 11,  
2007 at page 11, first paragraph.)

The Applicants notes that these reasons are provided in the "background"  
section of Novak in order to explain deficiencies in the prior art, which are addressed  
by the teachings of Novak. The Applicants submits that these reasons provided by

*Application No. 10/173,326*  
*Docket No. 10013243-1*  
*Response/Amendment*

1 Novak have absolutely no relation whatsoever to the teachings of Yamauchi, nor to  
2 the Applicant's invention. That is, neither Yamauchi, nor the Applicant, mention, or  
3 depend upon, anything relating to electron beams and/or shielding magnetic fields.  
4 Also, neither Yamauchi nor the Applicant seek to solve any type of problem or  
5 deficiency in the prior art relating to shielding electromagnetic fields and/or to  
6 avoiding shift of electron beams.

7 The Applicant submits that the reasons provided by the Examiner for  
8 combining the teachings of Yamauchi and Novak do not amount to the required  
9 motivation to make the claimed combination, and are thus not sufficient to establish  
10 a *prima facie* case of obviousness in accordance with the legal principles set forth  
11 under 35 U.S.C. 103. Specifically, the Examiner "must identify specifically the  
12 principle, known to one of ordinary skill, that suggests the claimed combination ...  
13 [and] must explain the reasons one of ordinary skill in the art would have been  
14 motivated to select the references and to combine them to render the claimed  
15 invention obvious." (*In re Rouffet*, 149 F.3d 1350, 47 USPQ 2d 1453 (Fed.  
Cir. 1998).) However, the Examiner has merely recited the motivation behind the  
16 teachings of Novak itself, which have nothing to do with the problems addressed by  
17 Yamauchi, nor with the problems addressed by the Applicant's claims.

18 The Applicant contends that a *prima facie* case of obviousness has therefore  
19 not been established, and/or that the Examiner's reasoning is deficient at least  
20 because there is not sufficient explanation given by the Examiner as to why one of  
21 ordinary skill in the art would have been motivated to select the teachings of  
22 Yamauchi and Novak and to combine them to render the claimed invention obvious.  
23 The Applicant contends that claim 16 is therefore nonobvious.

24 **The Applicant further notes that at no time has the Examiner ever**  
25 **addressed the above arguments regarding the lack of motivation to combine**  
**Novak with other references, notwithstanding that these arguments have been**  
**presented at least twice previously. The Applicant therefore requests that, in**  
**the event Novak is used in the future to reject any of the pending claims under**  
**35 USC 103, the Examiner provide a response to these arguments to at least**  
**move this issue along to resolution.**

Further, the Applicant contends that Novak actually teaches away from  
moving the light source (as per Yamauchi), since at Col. 4 lines 22-28 Novak states:

Application No. 10/173,326  
Docket No. 10013243-1  
Response/Amendment

1 Minimizing the movement of relatively heavy and bulky  
2 components during exposure of the article also minimizes  
3 the amount of potential vibrations that may occur as the  
4 support platform is moved. These vibrations can also have a  
5 negative effect on the exposure performance of the system.  
6 The positional stage is designed to minimize movement of  
7 such components during exposure.

8 "Heavy and bulky components" (per Novak) would likely include the scanning  
9 member 15 (Fig. 1) of Yamauchi. To this end, Novak provides for using a linear  
10 motor to move a work-piece in relation to a fixed light source, versus moving the light  
11 source. (See Novak at Col 2 lines 51-67.) That is, Novak teaches (or at the very  
12 least, suggests) making the scanning member stationary, while moving the work-  
13 piece. Accordingly, one reading Yamauchi and Novak would *at most* be inclined to  
14 adapt the drive mechanism of Yamauchi to the work-piece-moving apparatus of  
15 Novak, versus the other way around. That is, neither Yamauchi nor Novak provide  
16 any teaching, suggestion or motivation to apply the drive system of Novak to the  
17 scanning system of Yamauchi, and, in fact, Novak suggests not doing this, since this  
18 would result in an apparatus wherein "heavy and bulky components" are moved. Put  
19 another way, upon reading Yamauchi and Novak, one of skill in the art (at the time of  
20 the Applicant's invention) would (at best) be motivated to apply the drive system of  
21 Yamauchi to the fixed-light-source apparatus of Novak, since Novak suggests the  
22 apparent benefits of "minimizing movement" of components such as the scanning  
23 apparatus. And, as can be seen, applying the drive source of Yamauchi to the  
24 apparatus of Novak would not result in an apparatus according to Applicant's  
25 claim 16.

Accordingly, the Applicant requests that the obviousness rejection of claim 16  
be withdrawn and that claim 16 be allowed.

The Applicant notes that each of claims 17-22 depends from claim 16.  
Therefore, each of claims 17-22 is nonobvious for at least the reasons that claim 16  
is nonobvious as set forth herein above. Accordingly, the Applicant requests that the  
obviousness rejections of each of claims 17-22 be withdrawn.

With respect to independent claims 23 and 29, the motivation to combine the  
references, as provided by the Examiner, is essentially the same as that provided by  
the Examiner in rejecting claim 16. As discussed herein above with respect to

1 claim 16, the motivation to combine the references as provided by the Examiner is  
2 not sufficient and/or is based upon defective reasoning. That is, the Examiner's  
3 explanation of the motivation to combine the reference teachings is defective and/or  
4 insufficient in view of the accepted legal standards.

5 The Applicant therefore contends that a *prima facie* case of obviousness has  
6 not been established for either claim 23 or claim 29 at least because there is no  
7 motivation to combine the reference teachings. The Applicant therefore requests  
8 that the obviousness rejections of claims 23 and 29 be withdrawn and that claims 23  
9 and 29 be allowed.

10 The Applicant notes that claims 24 and 25 depend from claim 23, and that  
11 claims 30, 31, and 32 depend from claim 29. Therefore, each of claims 24, 25, 30,  
12 31 and 32 are nonobvious for at least the reasons that claims 23 and 29 are  
13 nonobvious, as set forth above. The Applicant therefore requests that the rejections  
14 of each of claims 24, 25, 30, 31 and 32 be withdrawn and that those claims be  
15 allowed.

16 In regard to claims 20 and 21, those claims depend from claim 16. Therefore,  
17 each of claims 20 and 21 is nonobvious at least for the reasons that claim 16 is  
18 nonobvious, as set forth herein above. Moreover, in regard to claim 21, that claim  
19 contains the limitations, "a linear encoding strip... and a sensor ...configured to  
20 detect the linear encoding strip."

21 The Applicant notes that the Examiner does not allege that any of the cited  
22 prior art references teach these limitations. Specifically, the Examiner alleges no  
23 more than that Sugano teaches "a position detecting system." That is, the Examiner  
24 does not allege that Sugano teaches "a linear encoding strip... and a sensor  
25 ...configured to detect the linear encoding strip" as is required by claim 21. Since  
the Examiner has not alleged that the prior art references teach all of the claim  
limitations, it follows that the Examiner has not established a proper *prima facie* case  
of obviousness.

Even if the Examiner had alleged that Sugano teaches a linear encoding  
strip... and a sensor ...configured to detect the linear encoding strip as contained in  
claim 21, Sugano in fact does not teach or disclose those limitations. At most,  
Sugano discloses a sensor (18) that is nothing more than a proximity sensor  
configured to detect a predetermined position of the light source mechanism (8) to

1 control activation of the reading lamp (12). (Sugano, col. 7, line 45 through col. 8,  
2 line 17.) This teaching of Sugano is in no way equivalent to "a linear encoding  
3 strip... and a sensor ... configured to detect the linear encoding strip", as required by  
4 Applicant's claim 21.

5 Thus, notwithstanding the arguments herein above with regard to claim 20,  
6 the Applicant contends that claim 21 is nonobvious for the additional reason that the  
7 cited prior art references, when combined, do not teach all the claim limitations, as is  
8 required for a *prima facie* case of obviousness.

9 The Applicant therefore requests that the rejections of each of claims 20  
10 and 21 be withdrawn and that those claims be allowed.

### 11 SUMMARY

12 The Applicant believes that this Response/Amendment constitutes a full and  
13 complete reply to the office action mailed December 11, 2007. The Applicant further  
14 believes, for at least the reasons presented herein above, that claims 12-25 and  
15 29-36 are allowable, and the Applicant respectfully requests timely allowance of  
16 these claims.

17 The Examiner is respectfully requested to contact the below-signed attorney if  
18 the Examiner believes this will facilitate prosecution toward allowance of the claims.

19 Respectfully submitted,

20 Curtis Gregory KELSAY, Applicant

21 Date: February 11, 2008

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